

New and known thienyl urea or isourea derivs. - used as animal growth promoters

Patent Assignee: BAYER AG (FARB )

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Abstract (Basic): DE 3529247 A

(A) Thienyl (iso)ureas of formula (Ia) are new  $n = 3-6$ ;  $A = N(R_4)CONR_5R_6$  or  $N(R_4)C(OR_5)=NR_6$ ;  $R^3 = (a) CN, COOR_7, CONR_8R_9$  or  $COR_{10}$  when  $n = 3, 5$  or  $6$ , or  $(b) COOMe, (2-4C\text{ alkenyloxy})carbonyl, CONR_8R_9$  or  $COR_{10}$  when  $n = 4$ ;  $R_4 = H$  or alkyl;  $R_5$  and  $R_6 = H$ , opt. substd. alkyl, cycloalkyl, alkenyl, opt. substd. aryl or heteroaryl;  $R_7 = H$ , opt. substd. alkyl, cycloalkyl, alkenyl or opt. substd. aryl;  $R_8 = H$ , alkyl or cycloalkyl;  $R_9 = H$ , opt. substd. alkyl or opt. substd. aryl;  $R_{10} =$  opt. substd. alkyl or opt. substd. aryl.

(B) Thienyl isocyanates of formula (II) are also new, except for 3-methoxycarbonyl -2-thienyl isocyanate;  $R_1$  and  $R_2 = H$ , halogen,  $NO_2$ ,  $CN$ , alkoxy, alkylthio, haloalkoxy, haloalkylthio, alkoxyalkyl or opt. substd. alkyl, acyl, aroyl, or aryl, or  $R_1+R_2$  forms an opt. substd. satd. or unsatd. carbocyclic ring opt. with a carbonyl function;  $R^3 = COOR_7, CONR_8R_9$  or  $COR_{10}$ ;  $R^7 = H$ , opt. substd. methyl, cycloalkyl, 2-4C alkenyl or opt. substd. aryl.

USE - Use of thienyl (iso)ureas of formula (I) is 'animal productivity promoters' (specifically growth promoters) is claimed.  $R_3 = CN, COOR_7, CONR_8R_9$  or  $COR_{10}$ . (79pp Dwg.No.0/0)

Abstract (Equivalent): EP 202538 B

Use of thienylureas or -isoureas of the formula (I) in which A represents the radicals (Ia) and (Ib)  $R_1$  represents hydrogen, halogen, nitro,  $CN$ , alkoxy, alkylthio, halogenoalkoxy, halogenalkylthio, alkoxyalkyl or optionally substituted radicals from the group comprising alkyl, acyl, aroyl, and aryl,  $R_2$  represents hydrogen, halogen, nitro,  $CN$ , alkoxy, alkylthio, halogenoalkoxy, halogenalkylthio, alkoxyalkyl or optionally substituted radicals from the group comprising acyl, aroyl, alkyl and aryl, or  $R_1$  and  $R_2$ , together with the adjacent C atoms, represent an optionally substituted saturated or unsaturated carbocyclic or heterocyclic ring, which can optionally carry a carbonyl function,  $R_3$  represents the radicals  $CN, COOR_7, COONR_8R_9$  or  $COR_{10}$ ,  $R_4$  represents hydrogen or alkyl,  $R_5$  represents, optionally substituted alkyl, cycloalkyl, alkenyl, optionally substituted aryl or heteroaryl,  $R_6$  represents hydrogen, optionally substituted alkyl, cycloalkyl, alkenyl, optionally substituted alkyl, cycloalkyl, alkenyl, or optionally substituted aryl,  $R_8$  represents hydrogen, alkyl or cycloalkyl,  $R_9$  represents hydrogen, optionally substituted alkyl or optionally substituted aryl and  $R_{10}$

Herbicidal 4-ureido-thiophene-3 carboxylic acid ester(s) - prepd. e.g. by reaction of 4-amino-thiophene-3- carboxylic acid ester(s) with isocyanate(s)

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Number of Countries: 004 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3305866	A	19840823	DE 3305866	A	19830219	198435 B
EP 116932	A	19840829	EP 84101466	A	19840213	198435

Priority Applications (No Type Date): DE 3305866 A 19830219

Cited Patents: DE 2040579; DE 2122636; EP 90309; US 2453564; US 3931204

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3305866	A		27		
EP 116932	A	G			

Designated States (Regional): DE FR GB IT

Abstract (Basic): DE 3305866 A

Cpds. of formula (I) are new. In (I) R1=H, 1-10C alkyl, 2-10C alkenyl, 2-10C alkynyl, 1-10C haloalkyl, 2-10C alkoxyalkyl, 2-10C alkylthioalkyl, 3-7C cycloalkyl, phenyl(opt. substd) by or benzyl (opt. substd.); R2=1-10C alkyl, 2-10C alkenyl, 2-10C alkyl, 8-10C phenylalkyl, 1-10C haloalkyl, 2-10C alkoxyalkyl, 2-10C alkylthioalkyl, 3-7C cycloalkyl, phenyl (opt. substd.) or benzyl (opt. substd.).

USE - As selective herbicides in a wide range of crop plants.

Application may be pre- or post-emergence and is generally at a rate of 0.1-5 kg/ha or more, pref. 0.5-3 kg/ha.

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Title Terms: HERBICIDE; UREIDO; THIOPHENE; CARBOXYLIC; ACID; ESTER; PREPARATION; REACT; AMINO; THIOPHENE; CARBOXYLIC; ACID; ESTER; ISOCYANATE

Derwent Class: C02

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File Segment: CPI

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